Abstract of the Disclosure

The invention relates to a process and device for determining the alignment, with respect to a reference direction, of a cylindrical body (10) mounted to rotate around its lengthwise axis (22). The device including a position measurement probe (20), which is calibrated to the reference direction, being attached on the end face (12) of the body or on a surface essentially parallel to the end face, which probe gathers measurement data in at least three measurement positions around the lengthwise axis each position of which differs from the other by an angle of rotation of the body, such that one position measurement at a time is being taken. Then the alignment of the body with respect to the reference direction is computed from the determined measurement data.